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LIMITATIONS OF THE

RICARDIAN THEORY OF RENT

BY

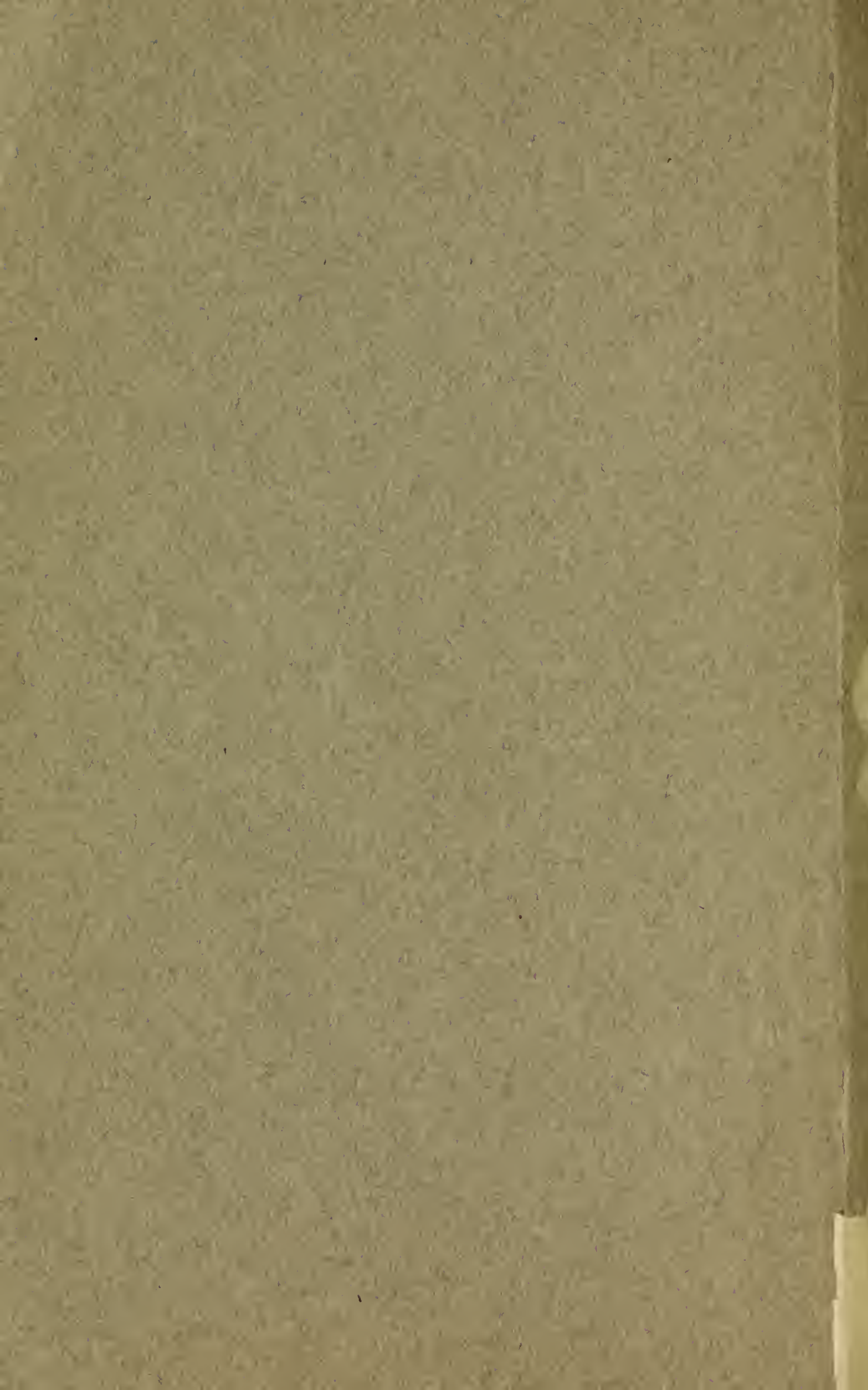
WM. R. CAMP, A.B.

Submitted in Partial Fulfilment of the
Requirements for the Degree
of Doctor of Philosophy

IN THE

GRADUATE SCHOOL
OF THE
UNIVERSITY OF MISSOURI

1918



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THE LIMITATIONS OF THE RICARDIAN THEORY OF RENT I

THE application of an economic theory is limited to the conditions of the time in which it arose. A static theory, particularly, has this limitation; it can lay no claim to being evolutionary. Its main endeavor is not to gain a view of the long-time development of institutions, not to discover the factors of change and thus to give a theory of changing society, but to formulate what is conceived to be the normal state—" normal" being preferred to " natural" in the present day; though it is difficult to see that the one more than the other escapes the postulation of a static order of society. Even those economic theories which use the evolutionary method of investigation cannot lay any claim to finality, for they cannot predict what the cultural variants will be.

The purpose of this investigation is to make a study of the economic and political conditions which gave rise to the Ricardian theory of rent and to show in what respects economic and political development has failed to follow the expectations of the Ricardian theorists. They expected that rents would increase, so that wealth would concentrate in the hands of the landlord class. To explain why this has not occurred is to give a new theory of the distribution of wealth and to make clear the possibility of a new theory of institutional development. The institutional changes which affect the agricultural classes will be illustrated mainly in connection with the building, capitalization, and rate-making of the new system of transportation which has come into existence since

the time when the Ricardian theory of land income was formulated. No attempt will be made to take exception to Ricardo's logic. Rather, it is desired to show its fitness as applied to his time, and its inadequacy only as applied to the present.

The theory of rent was formulated when the belief was still current that the landlord class would continue to hold the position which it maintained under feudalism. During the feudal period land was the one thing desired. All important wealth, such as gold rings, leather stockings filled with silver pieces, trinkets, expensive raiment, even house furniture, economic instruments, slaves and cattle—all these things were only supplementary to that fundamental and chief wealth, land.[1] All capital goods were accessory to land ownership. Even a capitalistic enterprise so fundamentally important as flour milling was tributary to the land owners, to whom it was simply an additional instrument for obtaining an income.[2] To secure the whole advantage and complete control of this prime instrument of production the Romans developed an extensive system of slavery and serfdom. The new barbarian rulers were able to utilize the classes thus trained in subjection, for the work of tilling the soil. The chieftains, who later became known as feudal lords, gradually gave up industry and devoted themselves to fighting. As these fighting men became able to pick up a living from their predatory operations, ordinary labor proved distasteful to them. Pride in prowess supplanted pride in workmanship. The forefighters depicted in Homeric and Icelandic cultures show the honor that attached to the fighting men of these early days. Gradually, as the forefighter gained eminence, he obtained a larger number of followers, and when the followers became sufficiently numerous, the leader induced others to fight for him. The exercise of control and of leisurely vaunting of the fruits of fighting became finally the inherited prerogative of overlordship or kingship. The activities of this fighting class were thus related to the distribution,

[1] Schoenfeld, Der Islandische Bauernhof und sein Betrieb zur Sagazeit, 1902, p. vii.

[2] Ashley, English Economic History, vol. i, pt. i, p. 34; pt. ii, pp. 6, 32, 40.

control and consumption of wealth, rather than to its production. A man's pre-eminence was to be measured by the degree of his aloofness from industry and by the extent of his control of its usufruct. The operations of this new predatory class of barbarians increasingly interfered with the inherited fruits of empire of the Cæsars. The Roman roads which were the imperial channels of control and of trade fell into disuse. Authority became decentralized in accordance with the free institutions of the North. Feudalism took the place of the Roman system of taxation. The vassal held land in fief and gave in return a certain amount of his time to fighting with his lord. The serf received strips of land from the vassal in return for labor on a portion of the latter's estate. Thus feudalism was a military system of control of the productive processes of agriculture. According to the later productivity theorists, the new industrial order of capitalism contained no survival from the old parasitic system except in the case of land ownership.

In the early middle ages the crafts were merely accessory to a self-sufficing manorial unit. Gradually less work was done in the separate farm households, and more in specialized centers. These town trades organized themselves into craft and merchant gilds with interests distinct from those of the agricultural community. Later, hand and water power made a larger scale of production more economical and thus gave greater advantage to the specialized centers of trade and industry. Better communication became a profitable channel for increased trade. A new class of merchants developed larger and more distant markets. But gild and mercantile regulations limited this expansion of trade.

In harmony with the demands of tradesmen for a wider market Adam Smith brings forth his doctrine of free trade and of land monopoly. With free competition under a natural order of liberty he believes that there will result an equalization of profits. "The whole of the advantages and disadvantages of the different employments of labor and stock must in the same neigborhood be perfectly equal or continually tending to equality." This is the ideal state of society which

will make the centralization of control through the ownership of industrial wealth impossible, and which will tend to be realized if all interference from the government and other obstructive organization be removed. "All system, either of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord." Every man should be left free to pursue his own interests as a separate individual, but not in combination. Organization obstructs and restrains the free course of individual trade. Adam Smith was not deceived, as his followers have been, in thinking that this state of industry then existed; it was only tending to be realized. His theory is the doctrine of the sufficiency of free competition to establish the price relation between industrial agents, if governments will withdraw their "preference." Governments obstruct the tendency toward a divine natural order. The rejection by later economists of the theory of a divine order or of a natural order does not necessarily evidence any material grounds for their conclusions. They reason on the basis of an assumption of the existence of free competition without giving any proof of it. In Adam Smith's time business was largely carried on by individuals or by partnerships. Since the corporate form of organization has become prevalent, business is demanding liberty to organize. The conception of the divine order of free competition is being abandoned.

Adam Smith's belief in the individualistic form of free competition had some basis in historical fact. The main change in institutions had been apparently in that direction. Capitalistic enterprise had, in a measure, already overturned the gild organization of society, through which the number of apprentices and masters and the quality and price of their goods had been regulated.[1] But it should be noted that this victory was not the victory of individual capitalists unaided by organization. The richer members of the gilds gained control of the gild organizations. By purchasing in large quantities the large

[1] Ashley, English Economic History, vol. i, part i, pp. 71, 80, 103; pt. ii, pp. 29, 75, 94.

trader had the advantage in bargaining with the small master craftsman, whether in selling him raw material, or in buying from him finished wares.[1] The craftsman became poorer and more helpless until finally, when he was reduced to the position of a laborer, he had completely lost the advantage of private property. The merchant had the organization of the government to support the property rights of capital. He no longer gained a livelihood by craftsmanship, but by trading. In trade, capital had become a necessity.

The national monopolies granted by the Tudors and early Stuarts did not continue after the abolition of the royal grants. The common law did not favor this national restraint of trade.[2] These king-created monopolies had not the advantage of modern large-scale production or the power of the modern trusts to isolate competitors and crush them one by one. The power of the early capitalists, however, was sufficient to force part of the craftsmen to become permanent journeymen or mere laborers. The laboring class became larger and the owning or controlling class smaller. Thus both the town monopolies possessed by the gilds, and the national monopolies granted to court favorites, were finally supplanted by an individualistic form of competition.[3] Though this change was not complete in Adam Smith's time, there were good historical reasons for the current belief that if political privileges were withdrawn competition would spread.[4]

From the competitive philosophy of Adam Smith's natural order, a situation of centralized capital does not logically follow, as either an immediate or a remote possibility.[5] "If in the same neighborhood, there was any employment evidently either more or less advantageous than the rest so many people would

[1] Unwin, Industrial Organization in the Sixteenth and Seventeenth Centuries, pp. 107, 129, 162; Unwin, The Gilds and Companies of London, pp. 251 *et seq.*; Lewis, The Stannaries, p. 208.

[2] Price, The English Patents of Monopoly, pp. 127, 128, 132.

[3] Levy, Monopoly and Competition, pp. 52 *et seq.*

[4] *Ibid.*, ch. v.

[5] It serves the purpose of this investigation to use the term capital in the old sense as excluding land.

crowd it in the one case, and so many would desert it in the other, that its advantages would soon return to the level of other employments." This, Smith continues, is true on the assumption that all are at "perfect liberty" to compete with one another.[1] On the other hand, in the theory of rent the conclusion is reached that wealth will centralize in the hands of the land owners. The theory of capital is an ideal of "perfect liberty"; that of rent, more of a hard fact of the old order of society. Rent, says Adam Smith, "is naturally a monopoly price."[2] "Considered as the price paid for the use of land, it is naturally the highest which the tenant can afford to pay in the actual circumstances of that land."[3] This expresses our modern doctrine of "charging what the traffic will bear." The rent of land varies with its fertility and its situation.[4] The landlords have all the surplus of produce above what is necessary to maintain labor and pay the ordinary rate of profit to the stock employed. In the natural order of society, more food is produced than is necessary to support the workmen who produce it. As the surplus of food increases, the population may and will increase in number. With the increase of population the demand for food products will increase, and the value of the produce which the landlords receive will rise.[5]

The rent of the landlord depends not only upon the demand for the produce of his land, but also upon the price of manufactured goods, for which he exchanges that part of the surplus produce of the land which he does not consume.[6] Under the natural order of free competition, products will fall in value with every improvement and every increase of the capital which makes labor more efficient. With increased efficiency, less labor will be used, the cost of producing a commodity will be less, and its price will be lower. The surplus of the landlord will increase both in quantity and in purchasing power. In

[1] Wealth of Nations, Bohn ed., London, George Bell and Sons, 1905, p. 101.

[2] *Ibid.*, p. 151.

[3] *Ibid.*, p. 149.

[4] *Ibid.*, p. 153.

[5] *Ibid.*, p. 172.

[6] *Ibid.*, p. 262.

the natural order, land is the only monopoly. Every increase in the real wealth of society, every increase in the quantity of useful labor employed within it, tends indirectly to raise the real rent of the land,[1] but "as riches, improvement and population have increased, interest has declined."[2]

But during the latter part of the eighteenth century government regulation continues to interfere with the natural order of free competition. The centralized and combinable character of the town industries makes it possible for those engaged in them to regulate trade to their own advantage.[3] Through the corporate privileges granted, the town workmen are able to restrict the number of apprentices, limit the supply of stock, and fix prices. The statute of apprenticeship restricts the free circulation of labor and of stock. Prices naturally vary according to supply, but the corporation laws of the towns enable tradesmen to fix prices.

The inhabitants of the country, landlords, farmers and laborers, dispersed in distant places, cannot easily combine. They are not in an advantageous position for bargaining, as are the people of the towns. The free and equal exchange relations which condition the full operation of Adam Smith's theory of supply and demand do not exist. So it is not simply a question of efficiency of labor, of fertility of soil, of improved methods of production, and of yield per acre on the supply side, and of large population on the demand side, as would be the case in a purely technological situation. In isolated production for household consumption, the interest is in using those methods which will yield the largest crop for domestic needs. But the trades of the towns are conducted according to a different principle. Their method is the organization of industry and business, not for the greatest output or largest physical productivity, but for the highest price or largest value return. The instruments for producing quantity of return are in the hands of the farmer, but the market, in which value arises, is

[1] *Op. cit.*, bk. i, ch. ii, p. 262.

[2] *Ibid.*, p. 95.

[3] *Ibid.*, pp. 129–130.

within the control of tradesmen acting under the corporate laws of the towns.

As organization is a factor in the control of prices, the country producers, in dealing with the people of the towns, are obliged to sell cheap and buy dear. Hence, as Adam Smith says, the country producers are unable to buy back their share of the total produce of the community. It is not simply a question of the proportion of technological factors. The strategic position of the owners of some of these factors has been of sufficient moment to bring about a result, the reverse of that to which the economic reasoning of Adam Smith would lead in the natural order of society. Not merely the relative supply of the material factors affects the price paid for them and consequently the distribution of wealth, but the greater ability of the makers of wrought goods to combine to fix prices, and the power of governments to regulate the trade of town and nation are decisive immaterial factors in determining market prices. Instead of the country fostering the growth of the towns, the towns outgrow the country, and agriculture lags behind.[1] "Nothing is more secure than the investment of capital in land, but the large profits made in the towns attract capital away from the securest place of investment."[2] Duties, moreover, favor the manufacturers more than the farmers.[3] Mercantile regulations are a logical outcome of the interest of the tradesmen in protecting the home country and colonies from foreign competition. Of the monopoly of the colonial trade, Adam Smith says: "To widen the market and to narrow competition is always the interest of the dealers,"[4] but "by raising the rate of the mercantile profit, the monopoly discourages the improvement of land."[5] Greater profits to land improvement encourage agriculture, but greater profits to mercantile enterprise will draw capital away from employment on the land. Thus government regulation favors

[1] *Op. cit.*, bk. iii, chs. i, iv.

[2] *Ibid.*, bk. iii, ch. i, p. 385.

[3] *Ibid.*, bk. iv, ch. ii, p. 459.

[4] *Ibid.*, bk. i, ch. xi, p. 265.

[5] *Ibid.*, bk. iv, ch. vii, p. 123; bk. i, ch. xi, p. 262.

manufacturers and merchants above the agricultural classes in the distribution of the annual produce of the land and labor of the country. As a result of government interference all the great fortunes are made in the towns.[1]

Thus in the existing order which Adam Smith characterizes as unnatural and retrograde he recognizes that the state is a factor in preventing that perfect mobility of capital upon which the assumption of a tendency toward the uniformity of prices depends. Later economists of the classical and marginal utility schools reason upon the basis of this assumption of Adam Smith's natural order, but ignore the factors which he recognizes had prevented its realization. Under the unnatural existing order labor and stock are not left free to circulate according to demand, prices do not tend toward uniformity in different markets, profits do not tend toward equality, profits are greater in the towns, capital does not flow to agriculture but to trade in which the greatest fortunes are made. Instead of agriculture stimulating the development of manufactures and commerce as would result in the natural order, the development of the latter has given birth to the principal improvements in the former.[2] Under a trade monopoly, the rate of profit and of interest will be higher, but the aggregate of profits will be less.[3] Less capital may be saved and a smaller number of productive laborers can be maintained. With the farmer's profit diminished, less capital will be employed upon the land and less food will be produced. The real rent of the landlord, or his power to purchase the labor or the produce of the labor of other people, is reduced both by the diminished size of the surplus produce, which goes to him, and by its diminished purchasing power. Thus rent falls with the rise of trade monopoly profits. In the natural order population and landlords thrive together. In the unnatural order landlords lose their ascendant position, wealth centers in the hands of the trade monopolies, and population is checked.

[1] *Op. cit.*, bk. ii, ch. v, p. 381; bk. iii, ch. iv, p. 422.

[2] *Ibid.*, bk. iii, ch. i, p. 388.

[3] *Ibid.*, bk. iv, ch. vii, pp. 123 *et seq.*

Thus Adam Smith saw the significance of the revolution which was then under way. His analysis as a whole takes full account of it. But if we had confined our attention to that part of his work which illumines the natural order, as has been usually the custom of economists, we should have found no suggestion of the revolution that was taking place in institutions.

In the consideration of the relation of landlordism to capitalism, Ricardo's *Political Economy* is a most valuable document, especially when it is regarded in connection with the conditions of which it is largely a pragmatic analysis. Its limitations are found in Ricardo's attempts to draw conclusions of universal application from an almost exclusive consideration of one period of time. The economic question of great importance before England at that time was: Shall the vested rights of the landlords be preserved and increased, or shall conditions favorable to the manufacturing interests be fostered? The great numbers engaged in the rapidly increasing manufactures of England, as well as those absorbed by the Napoleonic wars, were greatly increasing the demand for food products. The first attempt to meet the condition of high prices involved in this demand was by increasing the use of the waste lands.[1] Tradition, as well as the landed interest, was in favor of reliance upon home production of agricultural products. In the course of the effort to meet this pressing demand, the so-called law of diminishing returns, as first formulated by West and Ricardo, was worked out. With the poor in increasing wretchedness, no longer able to combine agriculture with manufacturing or handicraft, with the rapidity of invention bringing about a sudden change in labor requirements, the question of the diminishing returns of agriculture was not academic in the sense that it has since become, but was the problem of a country shifting from agriculture to manufacturing. Its solution involved the issue of the struggle between capitalism and landlordism. With a scrupulous consideration for the vested interests of the landlord, it would result, as Ricardo forecast, that "almost the whole produce of the country, after paying the laborers, will be

[1] Cunningham, History of English Industry and Commerce, vol. ii, p. 17.

the property of the owners of land and the receivers of tithes and taxes."[1] This view reflected the general expectation of that time.

According to Ricardo, "Profits depend on high or low wages, wages on the price of necessaries, and the price of necessaries chiefly on the price of food, because all other requirements may be increased almost without limit.[2] The price of food depends upon the margin of cultivation. The demand for food by an increasing population will cause a rise in the price of food. A poorer quality of soil will be brought into cultivation. The additional food will be produced with increased difficulty. With the increased price of food the employer will be obliged to pay higher wages, and his own profits will be correspondingly less. "The natural tendency of profits," says Ricardo, "then is to fall; for in the progress of society and wealth, the additional quantity of food required is obtained by the sacrifice of more and more labor."[3] The tendency is for accumulation, the additional demand for labor, and the rate of increase of population to diminish. "But ultimately," he says, "the very low rate of profits will have arrested all accumulation and almost the whole produce of the country, after paying the laborers, will be the property of the owners of the land and the receivers of tithes and taxes."[4] As population increases and as poorer lands are brought into cultivation, the rent or the difference between the value of the produce raised on the no-rent land and that of the more fertile lands increases. With improvements in agriculture, food will be produced with less difficulty, and prices of food will be lower. But as population increases, the demand for food products will be greater and prices will rise. The higher the price of food products, the greater will be the rent of the landlords, the higher the nominal wages of labor, and the lower the profits of the capitalists. But improvements in manufacturing will not benefit the capitalist. Free competition will bring about a

[1] Principles of Political Economy, Bohn ed., p. 97.

[2] *Ibid.*, p. 97.

[3] *Ibid.*, pp. 98, 70.

[4] *Ibid.*, pp. 99, 320–321, 255.

reduction in prices to the new level of the expenses of production. The consumer will ultimately receive all the benefits of improvements in the case of manufactured goods.

The capitalist is conceived to have no special advantage of ownership which competition may not take away. The manufacturer has no advantage over the tenant farmer. The profits are equal, or if not, the one with small capital may readily pass from one occupation to the other. "There cannot be two rates of profit,"[1]

> For the restless desire on the part of all employers of stock to quit a less profitable for a more advantageous business, has a strong tendency to equalize the rate of profits of all, or to fix them in such proportions, as may in the estimation of the parties, compensate for any advantage which one may have, or may appear to have over the other.[2]

Thus a perfect mobility of capital is postulated, and upon this assumption the conclusion is drawn that profits tend toward equality and prices in general toward uniformity.

From the logic of Ricardo it follows that there may be no accumulation of advantages through capital ownership and no concentration of wealth through capitalistic enterprise. Instead of there being an accumulation of advantages in the hands of the owners of capital the tendency is in a reverse direction, namely, toward a low rate of profits. The theory of capital income, as well as that of land income, leads to one and the same conclusion, namely, the concentration of wealth in the hands of the landowners. Ricardian logic in nowise disturbs the supremacy which the landholders possessed under the ancient order of feudalism.

In Ricardo's time the application of steam to spinning machinery and power looms had so completely broken up the old industrial and business organization of society, and individual competition was coming so forcibly into business life, that what was most emphasized were the transitional, competitive activities which characterized the period preceding the development of the new business organization. That the government might

[1] *Op. cit.*, p. 49. [2] *Ibid.*, p. 66.

be wrested from the hands of the landlords and turned to the account of the owners of capital was hardly conceivable. Nor was it apparent that vested rights might become more powerful and more highly organized in connection with the ownership of the new instruments of capitalistic production than was ever possible in connection with land ownership. The bias was in favor of reliance upon competition. The economic thought of the time is a theory of how the competition of natural economic forces may be found sufficient to regulate prices without government interference. Governments that were so largely in the hands of the landlords could not be relied upon. The monopoly of lands within a country by the landlords was more easily protected by tariff barriers at this time than later, as the undeveloped conditions of transportation made the competition of outside lands more difficult. Ricardo's theory represents the effectual character of this national monopoly. The landlord could reap all the surplus, while the tenant, the farm hand, and the general consumer would have little or none of the advantages from the use of the richer soil, or from improvements in farming. While Ricardo may not have been conscious of the scope of the revolution that was peacefully taking place, his insight into his time is surprising for one who was prepared to take only a static view.

The development of a system of canals in England made it cheaper for England to obtain food products from other countries by sea. Her increasing manufacturing interests made it imperative that these outside agricultural resources should be utilized. With the importation of corn less of the country's land will be used, the margin of cultivation will be raised, rent that goes to the unproductive class will be diminished, real wages will be higher, profits will be higher, production and the general happiness will be increased.[1] Thus Ricardo sees clearly that the competition of foreign corn means lower prices. "The fall of prices invariably affects the landlord until the whole of his rent is absorbed."[2] This line of argument is

[1] Principles, pp. 256, 257.

[2] *Ibid.*, pp. 419, 252-253.

more in accord with the actual course of events as they have taken place; but Ricardo's theory is not stated in terms of such a change.

The bounty on exportation of corn and the high tariff prohibiting its importation, except in time of unusual scarcity, helped to preserve to the landlord class until 1846 the advantages which had been acquired since the feudal régime. When England had become such a great center of manufacturing that her own farms could not produce sufficient for her industrial population except at higher prices than in countries where land ownership had not been so highly capitalized—where, in fact, in the absence of a feudal stage of development, land was relatively free, then the maintenance of the tariff on the importation of corn must come to an end, or the manufacturers themselves must cease to compete with other countries, where food products could be obtained on better terms. The development of the functions of the corn middleman was a potent factor in breaking up the land monopolies about the towns. The introduction of railroads was finally a decisive factor: better transportation extended the market for manufactured goods and made it possible for the British Isles to receive from more distant lands cheap food for the support of their laboring class. The repeal of the tariff on corn in 1846 indicated that the monopoly of English landed gentry was broken and that capitalistic enterprise in England was going to maintain its position. From being masters, with all the traditional advantages represented in economic theory, the landowners of England became competitors with the owners of the cheapest lands of the world, those of the United States, Argentina and Canada. But the power of the land monopoly need not have fallen unless another monopoly had come to crush it and take its place.

Instead of the landlord having an increasing power of capitalization of land, as would have followed if the progress of society had brought about that condition of increasing rents which enters into and forms the foundation of all economic theory that is either a survival of Ricardo's time or a slight modification of it, there took place a gradual depreciation of land values in Europe and even in the United States with the

successive opening up of new tracts of land for cultivation. The last territory opened up for settlement had the advantage. The lowness of its original purchase price more than offset its disadvantage of location. The first settler or speculator had a short-lived period of reaping the profits of an increased rate of capitalization due to the movement of population. Then instead of there being a continuous increase in land values, as would follow from the Ricardian theory, there soon came a time when depreciation set in because of the competition of new lands, and because of the system of rates of the new scheme of transportation.

The United States government alone came into the possession of a domain of 1,441,436,160 acres for distribution. The policy of selling the land at a low price, generally in small amounts, favored the development of the widest diffusion of ownership. The general Pre-Emption act of 1841, granting to the settler on the public domain the first right of purchase, encouraged the appropriation of land by men of small capital. The Homestead Act of 1862 granted a free title, to a maximum amount of 160 acres, to the settler who had resided upon and cultivated the land for five years.

The business of the speculator is to secure the land as nearly free as possible and hold it until he may sell it to the cultivator for a good price. To the degree that he succeeds, he eliminates free land and takes to himself all the pecuniary values that have accrued to idle land through the increase of population and the extension of railroad facilities; to the extent that his values are a money valuation of idle land rather than an industrial worth from the productive services of the land, he has checked population by that number of people who might have been supported upon it and apart from it by its surplus. Thus large tracts of land in the neighborhood of large cities, as well as in undeveloped territories, are held idle by land-investment companies. The Commutation Act of 1891 has favored the speculator as a middleman between the government and the cultivator.[1] By this act the five years' residence required under

[1] Report of Public Lands Commission, Senate Docs. 158-192 (1904-5), p. 75.

the Homestead Act might be commuted to a cash entry of $1.25 per acre after a virtual residence of eight months. This has made it possible for people without agricultural experience to secure the land from the government and then sell their titles to loan companies from whom they may have obtained the money to advance to the government.

In many parts of the United States the presence of the land speculator makes it very difficult for settlers to secure land cheap enough to make farming profitable.[1] The real-estate dealers, and not the landlord, as assumed in traditional theory, may get the increase in land values. The real-estate dealer is a new factor in a new situation, which has developed since the time of the formulation of the Ricardian rent doctrine.

With the development of the railroads and the great commercial centers on the Eastern seaboard, the policy of the United States government changed from an endeavor to make the public land a source of revenue, to the purpose of facilitating the widest possible settlement of the soil. The general Pre-emption Act of 1841 is a legislative mark of this change.

If the system of business had favored landlordism as the most advantageous arrangement for securing an income, then we should have expected that the railroad corporations, which were granted 155,273,560 acres of land by the United States government, would have become the greatest landlords in the country. But instead of keeping the agricultural lands, as would have been the result if the main advantage had been in such ownership, according to Ricardo's theory of the distribution of wealth, they disposed of their holdings at a reasonable advance over the price of government lands.[2] But they have become large holders of coal, lumber and oil lands, which have permitted the greatest power and advantage of combination under the present scheme of pecuniary centralization of wealth.[3]

[1] Report of the California Commission on Land Colonization, 1916

[2] Donaldson, The Public Domain, p. 779. Previous to Nov. 1, 1870, 14,310,-204.16 acres were sold for $68,905,479.81. Prices of railroad land sold ranged from an average of $2.14 per acre on the California Oregon Railroad to $12.12, the average price per acre on land sold on the Chicago, Burlington and Quincy Railroad.

[3] United States Industrial Commission, vol. xix, pp. 444–466; vol. ix, pp. xxlv *et seq*; vol. xix, p. 296; Proceedings of Conference of Governors, 1908, p. 138.

They have endeavored to increase the settlement along their lines by means of advertisements, immigration agents and home seekers' excursions; and to promote the efficiency of a new subject class of farm owners by the establishment of agricultural experiment stations.

Through experiment stations for the relatively free distribution of unpatented seeds and unpatented agricultural processes, by the reclamation of swamp lands and the development of irrigation systems, the government has created new competitors for the farm-cultivating and farm-owning class; while by patents and tariffs, and by authorizing or permitting the unrestricted sale or gift of mineral resources, timberlands, and water rights to large interests, the opposite methods are being pursued to restrict competitors in the case of the dominant instruments of production.

Canada has fostered settlement of its lands by helping to defray the expense of transporting the immigrant to the place of settlement. Argentina, one of the greatest competitors of the American farmer, has gone so far as to advance capital to the immigrant in addition to helping to pay his passage.[1] The Brazilian government, likewise, has been active in promoting small-scale farming.[2] The states of Australia and many countries of Europe have bought up large estates, subdivided them into small tracts and sold them on easy terms of credit to peasants.[3] Thus in the old world finally crumbles the ancient power which attached to land ownership. *Laissez faire* is no longer found to be a desirable government policy as applied to the development of agriculture. The competition of the agricultural lands in the new world was not sufficient to bring about the complete utilization of land in the old world without government interference. Government aid has been

[1] Emerick, "An Analysis of Agricultural Discontent in the United States," POLITICAL SCIENCE QUARTERLY, vol. 11, pp. 462–3.

[2] Pierre Denis, Brazil, p. 116.

[3] Duffus, Report on Agricultural Settlement and Farm Ownership, Wisconsin State Board of Public Affairs, 1912; Report of the California Commission on Land Colonization and Rural Credits, 1916; B. H. Hibbard, *American Economic Review*, vol. vii, p. 40.

necessary to give the peasant the credit required to make him the owner of a small farm. Government action was also necessary to force the sale of small tracts of land at reasonable prices. In some countries the government did not grant the right of sale of the land, but only the right of use and bequest. Thus the government eliminated speculative land values and guaranteed long-time possession to the cultivator. Short-time possession by tenants or temporary owners encourages exploitation and impoverishment of the soil. Government action is a form of organized effort which it was the purpose of competitive economic theory to prove unnecessary. With the fall of the *laissez-faire* doctrine, the logic of the economic theory which supported it ceases to have further application.

According to Ricardian logic, if prices are higher and profits larger in one locality than in another, the free movement of capital assumed will bring about uniformity of prices and equalization of profits between places. Thus the theory of equalization of profits and of uniformity of prices is dependent upon the existence of perfect mobility of capital. According to this theory, if there is more return at the no-rent or extensive margin of cultivation, owners of capital are free to leave the less paying forms of employment and take up the more profitable occupation of farming. In agriculture, business practice has diverged from this assumption of the perfect mobility of capital. The aid of the state has been invoked to increase land settlement. Land settlement and colonization have become state-directed in many countries. The movement of population and capital to the margin of cultivation, contrary to all Ricardian expectations, has not been the result of the free play of economic forces. The United States government has either given away agricultural lands or sold them at a nominal price. The establishment of the federal land banks in the United States under the Federal Farm Loan Act is recognition of the insufficiency of the movement of capital to agriculture. Furthermore, some governments in limiting the transfer of lands have abridged the freedom of investment which is one of the conditions of the perfect mobility of capital assumed.

To grant the cultivator ownership was to secure the greatest yield of crops from the soil. The profits of the railroads can best be assured by the freight charges on the necessary transportation involved in the modern scheme of production for a market. The cultivator as owner becomes the best caretaker. The bigger his crops the more the traffic will bear for freight, clothing, oil, coal, sugar and machinery charges. If the governments in the new countries grant free or cheap land to the cultivators, initial cost for land will be less, and the necessary interest on the initial investment will be correspondingly decreased; hence a larger part of the price of agricultural produce may be exacted by the other factors engaged in the productive and distributive processes.

Agricultural productivity at the margin of cultivation may depend upon the fertility of the soil according to the traditional theory of rent; but the value of agricultural products is not simply derivable from the productivity of marginal land or from the marginal utility of the marginal product. Quantity of products depends upon fertility; but the value of the product to the farmer is measured by the net receipts, or by the gross receipts minus all expenses incurred in its production. Net receipts will depend upon the relative bargaining position of the farmer in dealing with real-estate dealers, laborers, state grain-dealers' associations, elevator corporations, buyers and brokers generally, railroad companies, banking institutions, coal, lumber and hardware corporations, agricultural machinery, fertilizer, oil, sugar and meat trusts. This in turn is part of the larger question in regard to the relative position of small-scale business in dealing with large-scale business. To show this problem in its development a brief survey will be made of the historical relation of the landed and railroad interests in England and the United States.

In Adam Smith we have a theory of transportation in relation to the income of landlords and tenants. The income value of the distant location will be less than the near, by the amount of the labor costs involved in the increased distance of transportation. The rent of the landlord is diminished simply by the wages of the extra labor that must be utilized to transport

the produce the extra distance. If the transportation facilities are improved, the monopoly power of the country bordering the town is broken. More remote regions are put more nearly upon a level with those in the neighborhood of towns.

According to the labor or cost theory of transportation, the landed interest, as well as all other interests, is to reap advantages from the introduction of railways. Any saving in transportation costs through the use of steam will be added either to the farmer's profits or to the landlord's rent. The saving in capital and labor could be applied either to soils already under cultivation or to new soils. The additional expenditures in cultivation would be made up by decreased expenditure in transportation. Torrens says:

> The cost of bringing all things to market is comprised of the costs of production and the cost of carriage. Reducing the cost of carriage is precisely the same thing in its effects as reducing the immediate cost of production. Consequently the conveyance of light goods by steam power must cheapen all such goods to the consumers. This will necessarily enable them to consume a greater quantity of such goods, and the consumption of the greater quantity will enlarge the demand for labor, call a larger manufacturing population into existence, and thereby react on agriculture by increasing the demand for food. This cheaper mode of internal carriage will not only lower the price of light and refined manufactures to the home consumer, but will lower their price to the foreign consumer so that here again there will be an increased demand for manufactures, and for a manufacturing population, and here again there will be another beneficial reaction on the soil.[1]

If steam power should take the place of horse power, it would be possible to support a proportionately larger population by the amount of soil released from the maintenance of horses. The change would be so gradual that probably at no time would any land be thrown out of cultivation. Thus we see no revolution is contemplated in the scheme of institutions. The change represents simply the difference between them and

[1] Testimony of Colonel Torrens before a Select Committee of the House of Commons on Steam Carriages, October 12, 1831. Reprinted in the United States House of Representatives as No 101, Twenty-second Congress, first session.

horse power, which will result in a saving to the landowner as well as to the general consumer. That is, it is a difference in the productive power of two methods of locomotion, which will not in any way affect the relative position of vested rights except in the case of canal monopolists.

The proposal that transportation should be owned by the state and operated at cost was not followed. The railway was not simply to maintain itself for the sake of other interests; it was to become a new interest with profits of its own. Hence there arose a question of how far charges should exceed industrial or social costs. Excessive charges would mean a conflict of interests among land owners, farmers, manufacturers and merchants.

The faith of the time was in the sufficiency of free competition to regulate the price relation between the different interests. Provision was made for outside carriers to use the tracks of the first railway upon the payment of charges.[1] But the same kind of provisions for free competition had been unsuccessful in the case of canals,[2] for the ownership of wharves, land and warehouses along the canal involved the investment of a large capital, and consequently gave a position of vantage which precluded the use of the canal by an outside carrier. The canals had become an obnoxious monopoly. It was hoped that the introduction of railroads would destroy their monopoly power. It was thought that the competition of carriers on the railways would reduce the rates of transportation on both canals and railways. It was estimated that there was a mechanical saving in the use of steam power on railways over horse power on canals. The saving from this improved method also was to go to the consumer. This expectation was in accord with economic theory, as well as with popular opinion.[3] All improvements in transportation, like those in manufactures, would mean economy of energy, which would be expressed in terms of price

[1] Select Committee on Railways, 1839, Second Report, p. vi.

[2] Proceedings of the Committee of the House of Commons on the Liverpool and Manchester Railway Bill, 1825, pp. 100, 112, 113, 126, 307.

[3] Phillips, History of Transportation in the Eastern Cotton Belt to 1860, p. 387.

through the efficient action of free competition. Competition, as usually interpreted, assumes a rivalry of industrial methods in which the more economical is able to win and to give the benefit of the saving to the public through a lower price. It was not foreseen that carriers on the same railway, or that railways between common points, would find it to their interest to combine to regulate prices. There was no conception of the possibility that the railroads might some day become so powerful as largely to eliminate competition in transportation by water, either by owning and controlling steamship lines and terminal facilities or by refusing to co-operate in the transshipments which are commonly required in freight by water.[1]

The select committee of the House of Commons in 1839 found that the expectation of competition between carriers on the same railroad had not been realized. With a few exceptions the railways themselves were the exclusive carriers. While the law had provided for competition among carriers, the theory had not worked out in practice. The railway owning the stations possessed an advantage as a carrier of freight against which an outside carrier could not compete. A conflict of interests between the railways and the public was recognized. It was thought that government control over railways should be exercised to make up for the inefficiency of competition. But the basis upon which this government control should proceed is not indicated except in the vague, general way that the railways must be prevented from exercising their monopoly power to the detriment of the common public good.

In the fourteen years between 1825 and 1839 the railroads in England had thus come to be recognized as a monopoly. The government was assumed to be strong enough to regulate a monopoly so as to prevent its charges from becoming excessive. Government regulation could, however, derive force only from the effective weight of the interests involved. Which would prove the most powerful—the landed interests, the man-

[1] Report of the Commissioner of Corporations on Transportation by Water in the United States, pt. i, pp. ii, 160–1; pt. ii, p. xxiii; pt. iii, pp. 37–40; Interstate Commerce Report, vol. xxi, pp. 354 *et seq.*

ufacturers, the merchant class or the railways—no one was then prepared to say. If the railways, acting as monopolies, were able to dictate transportation charges, they would not suffer loss because of the excessive costs of construction, which, in part, were forced upon them by the landlord class. On the outcome of this struggle would depend the relative capitalization of the landed interests and the railways. According to the usual theory, the high cost of initial capital investment need not affect railroad charges. But this conclusion is based upon the assumption of free competition. A monopoly can fix prices to get back any excessive costs. The question really was: Could the English land monopoly be broken up by the substitution of another monopoly, namely, one of transportation, and, finally, what effect would its system of rates have upon the old system of land rents? These and related questions will be considered in the December issue.[1]

WILLIAM R. CAMP.

WEST RALEIGH, N. C.

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LIMITATIONS OF THE RICARDIAN THEORY OF RENT II

IN the POLITICAL SCIENCE QUARTERLY for September it was pointed out that, according to the theories existing before the introduction of railroads, there would be a centralization of wealth in the hands of the owners of agricultural lands, and that the Ricardian logic leads to increasingly high rents for landowners and to low profits for capitalists. The long struggle between these two classes had taught the capitalists to despise the political privilege and coercive gains of a landlord and militaristic government and to believe in the sufficiency of their own economic forces under free competition if the government would leave them free to trade without tariff and other restrictions. According to the economic theory of the third decade of the nineteenth century, railroads were expected to benefit all alike, landlords as well as manufacturers. But the landlords, through their control of the government at this time, had the advantage in being able to force the railroads to pay high prices for land.

The English railways were able to come into existence only after a great struggle with vested rights and established institutions. The cost of that struggle made up a large part of the original outlay for their construction. Each group of railroad promoters had to obtain the passage of a special bill through Parliament before construction could begin. The House of Lords was controlled by landowners who owned the ground over which the railways must secure a right of way. In the effort to exact as high a payment as possible for land, great opposition to railroads was developed in Parliament. The parliamentary expenses for the London and Brighton Railway amounted to £4,806 per mile;[1] for the Manchester and Birmingham, £5,190; for the Blackwell, £14,414; for the Great

[1] Francis Whishaw, The Railways of Great Britain, p. 269; Select Committee on Railways, 1839, 2nd Report, p. 30.

Western Railway, £775; and for the London Birmingham, £662.[1] In the competition for charters the best right of way did not necessarily win. It was a form of competition in which funds and political power had greater weight than purely industrial considerations. Such power is a factor to which no weight is given in economic theories that have originated from a labor theory of costs or from an equally industrial theory of value based upon supply and demand.

The difference between the estimated average cost of land to railways of £4,000 a mile in the United Kingdom and £235 per mile in the United States represents a difference in strength of organization between the landed interests in the two countries. In the United States, land, and sometimes cash also, was granted by the national, state, and city governments for a large portion of the right of way. In the condemnation proceedings for the sale of land, the probable increase in the land values was considered by the courts in favor of the railroads. Freedom from taxation was sometimes stipulated for a period of years. In Great Britain no consideration was to be given to any possible increase in land values. The landlords, in any event, were to receive the total increase. Not only were the lands sold to the railroads to be paid for according to their money-earning capacity, but also compensation was to be made to the landlords for other than pecuniary loss. Damage to scenic effects and relatively unproductive game preserves, and interference with convenience in general was to receive a pecuniary compensation.

The building of stations involved an excessive expense to meet the exactions of mature leisure-class tastes. Railroad companies had to undergo economically unnecessary expenditure in constructing tunnels made to avoid parks, and in building ornate bridges and expensive roadways to maintain the aesthetic standards of the English ruling class. These exactions were largely absent in the United States, together with

[1] Edwin A. Pratt, Railways and Nationalization, London, 1908, p. 213; G. A. Sekon, A History of the Great Western Railway, London, Digby, Long & Co., 1895, p. 8.

the leisure class that occasioned them. Country stations in the United States are frequently no more than sheds, effective for shelter but devoid of ornament. The expense of paying dividends upon these unnecessary initial costs has been the occasion of increased charges.[1]

The British railways have not been obliged to lower their capitalization by reorganization, as have the railways of the United States.[2] During the period of the most severe agricultural depression in England, since 1875, there was no scaling down of railway capitalization and no lowering of rates. Between 1873 and 1884 the total capital outlay upon the railways of Great Britain increased from 588⅓ to 801½ millions sterling.[3] For England this means an average increase of cost per mile of roadway from £42,533 in 1873 to £49,800 in 1884. "There is no class of property," says Mr. Jeans, "that has within recent years more largely increased in value than that of railways. Between 1870 and 1884 the net profits from railway working in the United Kingdom rose from 23¼ millions to 33¼ millions, an increase of ten millions or about forty-three per cent." The average dividend on this high capitalization did not fall below four and one-fourth per cent during this period.

On the other hand, land values depreciated in Great Britain between 1875 and 1895 fifty per cent, or nearly 834 million pounds.[4] Those with mortgaged holdings found themselves obliged to pay a higher interest than the rent would be according to the existing scale of capitalization. "As regards the changes in rents, the evidence shows that in the most depressed parts of England rents have been reduced on an average of fifty per cent, while on the very poor soil in some of the eastern and southern counties no rents can be obtained and farms

[1] Railroad charges upon which the dividends are based are not regarded as exactions according to the productive or utility theory of value. No element of exaction is conceived to enter prices. Prices are simply the resultant of industrial limitations. Railroad overcharges are conceivable, but overcharges have no place in a purely industrial theory of production and distribution.

[2] Stuart Daggett, Railway Reorganization, p. v.

[3] J. S. Jeans, Railway Problems, p. 44.

[4] Royal Commission on Agriculture, Final Report, 1897, C.–8540, p. 23.

have been thrown on the owners' hands."[1] The landlords do not necessarily obtain interest even on the present improvements. As in New England, the buildings sometimes cost more than the present reduced capitalization.[2]

In the thirties the railroads were the complainants; before the end of the century the reverse was true. In the early period the point of view of the law emanating both from the courts and from Parliament was that the property rights of the landlords must be maintained. The high compensation paid for land as well as the large parliamentary expenses involved in securing the right of incorporation are abundant evidence that the vested interests of the landlords were safeguarded in the infancy of railroad development. Now the government is supposed to maintain the income which gives to particular railroad property its present capital value. Any effective control which would involve a lowering of the present capitalization of railway investment would be considered a violation of the property rights of the investors.[3] There is no evidence of this revolution in institutions either in the later Ricardian rent doctrine or in the theory of capital income.

The railroads brought the British Isles into competition with those lands whose ownership counted least.[4] "English land which had to support the landlords, the titheowner, the farmers, the laborer, and a large army of paupers had to compete with land where often one man was owner, farmer, and laborer with no tithe and no poor rates."[5] In the new world the labor

[1] Royal Commission on Agriculture.

[2] Francis Allston Channing, The Truth About Agricultural Depression, London, 1897, p. 7.

[3] Thomas Waghorn, Traders and Railways, p. 3: "The Legislature is confronted with the difficult problem of adjusting the respective rights of the owners and of the users of the great highways of the kingdom . . The great courts look upon every legislative enactment regulating the rights of the parties as an encroachment on the rights of the railway companies, and as a quasi-confiscation of the shareholders' private property." In 1887 Jeans comes to a similar conclusion: With the exception of regulation in protection from accident, "the railways of this country are as free from state control as ever they have been." Railway Problems, p. 64.

[4] Final Report of Royal Commission on Agriculture, p. 53.

[5] Curtler, A Short History of English Agriculture, 1909, p. 293.

cost of producing a bushel of wheat was the largest factor. The low prices of farm products, raised to such a large extent upon land free from monopoly rents, diminished the importance of land ownership in England. The bias of those in favor of a labor-value basis for land, as well as for capital income, was to a certain extent realized.[1]

The bias in favor of a labor or industrial concept of value found expression in the belief that railroad charges should be proportioned according to the distance and cost of carriage. To Adam Smith and James Anderson, charges would be the product of the wages for the labor of carriage for one mile and the total number of miles. On the turnpike the rates of toll had been determined by the wear upon the road. Trained to this bias, the directors of the Stockton and Darlington Railway found themselves at the very beginning of railroad development in opposition to those mine owners who demanded an export rate on coal lower than the domestic rates. Much against their will, the directors were forced to allow an export rate of one and one-half pence when they were charging four pence for domestic coal. The exception has become the rule. The mileage system of rates of the turnpikes has been replaced by a highly varied system of tapering rates.

The change in the system of transportation has brought about a revolution in institutions. The monopoly advantage of the landowners near the centers of population, as represented by Adam Smith, was possible under a system of turnpikes. Tolls and cost of carriage piled up as the mileage increased, with the result that a point prohibitive of transportation of all

[1] Benjamin Badcock, Causes of Distress of the Landed Interests, *Westminister Review*, 1883, vol. 18, p. 124: "As of old it may be expected that our gentry will return to their natural avocation and for the loss of their huge profits, stolen, not earned from their fellow subjects, may find a recompense in the profits of their own labor. It is not difficult to perceive that this must result or that all the smaller gentry will be driven to seek employment in trades or professions. It will be permitted to few to enjoy a position where profits can be earned without self-exertion. Already this is felt in most trades. Land cannot in a state of free competition be free from the same wholesome and invigorating principle. The truth of this remark is known to all who are engaged in trades and are not possessed of huge capitals; the return to capital is so small it serves only as a helpmate to the personal labor of the capitalist."

heavy goods, such as coal and wheat, was soon reached. If the landowners could keep all their geographical advantage of location, every increase of population would add to the demand for farm produce at an increased price, that is, if the profits of middlemen did not disproportionately increase.[1] The price would need to be high enough to cover the higher freight rates of more remote lands. The more the geographical position of the near-by producer is considered in the system of railroad rates, the less the supply of products will be and the higher their price. One-fourth of early railroad rates in the United States was a relatively cheaper short haul than long haul.[2] Such a system of rates would have protected the local farm producer from outside competition, and given him a differential advantage over the more distant producer, and would have helped to maintain the local land monopolies postulated by Adam Smith and Ricardo.

By 1879 the lower rate for the long than for the short haul had taken away all geographical advantage from the New York farmer.[3] Rates were made as cheap from Chicago, Ill., as from Rochester, New York, to New York City. The best wheat land of the Genesee Valley, in New York, might just as well have been located on the Mississippi River. At this time the best lands in the eastern portion of the United States, as in England, ceased to pay more than interest on the buildings. The excess supply of grain of the Mississippi Valley, hauled on cheaper long-distance rates, went to swell the supply of England, and correspondingly to lower the price of wheat. By 1897 there resulted a great depreciation in English land values, as shown by the report of the Royal Commission on Agriculture. The American railroads might not be covering fixed charges on this grain traffic.[4] At this point appears a diverg-

[1] *Cf.* Adams, Marketing Perishable Farm Products, Columbia University Studies in History, Economics and Public Law, vol. lxii, no. 170.

[2] Ringwald, Development of Transportation System in the United States (1888), p. 111.

[3] Railroad Investigations, New York, 1879, vol. i, p. 113; vol. iii, pp. 1837–1894; McPherson, Railroad Freight Rates, pp. 165, 239, 252–3, 258, 359.

[4] Daggett, Railroad Reorganization, p. 340.

ence from the classical theory, as has been shown by Hadley.[1] Railroads did not curtail their services because those services could be performed only below the cost of their production. As long as the freight rate covered the variable expenses and paid something toward fixed charges it was better to take the traffic.

The farmer who was both a grower and a shipper found himself outclassed by the large shipper. The small shipper in a country village received a smaller rebate than the larger shipper in the same place and the latter less than the large dealer in the city. Thus it might happen that better rates for grain and cattle could be obtained by shipping west to Rochester and then east to New York city than by shipping direct to the latter city. The largest shippers were located at competitive railroad centers and competitive railroad and water points, and thus could demand better terms than the shipper or producer in a non-competitive district. The farmer's business for the most part was located at non-competitive points. He could not move his business to the city, and thus proceed in the direction of developing big business. In England, a country of short distances, as well as in the United States, the farmer could not with equal advantage be his own shipper. It is not simply that the cost is greater for transporting small amounts; the pressure is greater on the part of the large shipper to secure an even cheaper rate than the lower unit cost for the transporting of large quantities of goods. No supply-and-demand theorist who bases prices on marginal cost would allow that there might be such a concession of special privilege, which would give an advantage to those who manage large-scale business inasmuch as the privilege does not represent a technological equivalent upon the supply side.

The agricultural districts in New York were unable to secure the establishment of a pro-rata rate, which would have been in accordance with the cost theory of rates. In 1884 the farmers were a unit in support of a bill entitled, "An Act to Secure Pro-Rata Charges on Local Freight Carried by Railroads in the

[1] Hadley, Railroad Transportation, ch. iv.

State of New York," while the manufacturers and merchants were opposed to it. The manufacturers declared that if their special rates were withdrawn they would have to move from the state, as they would not be able to compete with manufacturers who had such concessions. The farmers complained of the depressing effect on land income and value of high local freight rates and of lower long-distance rates.[1]

The system of rebates had one effect upon capitalistic enterprise, an opposite one upon agriculture. The larger the shipment by the manufacturer the better the rates. A large shipment could be produced more cheaply. With a larger output of standardized products, more highly specialized or more automatic machinery could be used. In order to dispose of a large output, prices had to be lowered. To produce goods and find a market for them at low prices, special railroad rates had to be secured. Thus rebates became a business necessity for the time being. Co-existent with rate wars, cut-throat competition developed in manufacturing enterprises. The struggle between manufacturers to occupy the position of the favored shipper became more intense. During the time of good profits, plants of a larger capacity than the period demanded were constructed. The manufacturer sought railroad rates that would allow him to sell at his neighbor's door. The under-cutting which was prophesied by the classical school became a common practice. Thus one plant might successfully invade the market of another. Production below cost frequently resulted. Fixed charges went on in any case. It might be better to produce at full capacity so long as a little more than the variable expenses were covered. But in the case of manufacturers, there was at this time no local traffic upon which monopoly prices might be set in order to cover fixed charges. According to the expectation of the classical school, production below cost would result in the curtailment of output and in the elimination of the weaker plants. But historically this has not been the main course of events. Pools, corporations, consolidations and holding companies have been organized to control prices. The

[1] Report of New York Board of Railroad Commissioners, 1884.

destructive and wasteful character of competition has been recognized. Consolidation and community of interests through the establishment of interlocking directorates have put an end to rate wars and price-cutting. Co-operation for the maintenance of prices has been substituted for undercutting in many lines of business, as in coal, oil, steel, sugar, beef, and the retail trade generally.

Cheaper railroad ratings, as well as rebates, have helped to build central shipping points. Special commodity rates which favor particular manufacturers, jobbers, places, or industries, and which apply generally to carload lots, have been substituted for rebates.[1] The great increase in the carload minimum has been to the disadvantage of the small local dealer and to the corresponding advantage of large-scale business.[2] The difference between the rates for 100-pound lots and carloads, whether it represents a difference in the cost of transportation or in the influence of shippers, has worked to the disadvantage of all surviving small-scale producers. As a small producer, the farmer has been disqualified in his individual capacity from remaining his own shipper. As a consumer, the individual farmer is likewise affected. Almost everything he buys comes to the local dealers in less than carload lots.[3] The special carload rates, which are more widely prevalent in the East and the Middle West, the basing-point system of rates in the South, and the Pacific Coast system of terminal rates have favored the development of local jobbing centers for the distribution of goods to the small retailers in agricultural towns. These same systems of rates have made it necessary for local buyers to collect the raw produce from the farmers in small lots and send it on in carloads to the secondary markets for consumption or reshipment. The average farmer is at the same disadvantage in marketing his own produce as the small retailer in purchasing

[1] Proposed advances in freight rates, pp. 1442, 1469, 1594, 1925, 2185, 2862, 2866, 2924, 5395–5397, 5566–7, 3112; Ripley, Railroad Rates and Regulation, p. 322.

[2] Proposed advances in freight rates, pp. 678, 1194; Ripley, pp. 332–337.

[3] Proposed advances in freight rates, p. 3112.

direct from the manufacturer, or from the largest importing centers.[1]

While the formation of the great railroad systems has for the most part made it unnecessary for railroads to secure traffic by granting rebates, yet the system of rebates survives in the present system in the relatively high rates charged for local traffic. Local traffic has to bear a disproportionate amount of the total expense of transporting goods. Farmers are generally located, not at the through shipping points, but at the intermediate non-competitive points, at which rates were not forced down by rate wars or rebates. The surviving system of high local rates is a differential disadvantage to the farm-owning class—a fact which helps to explain the centralization of wealth outside of that class, contrary to Ricardian prophecy and logic. No special rate has given one farmer the ascendancy over another. There has resulted no trust in the farming industry. Where combination begins, the farmer's ownership ends. The advantage of lower rates has helped to bring about a centralization of control and of wealth in lines in which Ricardo thought that competition would be greatest and profits lowest.

The favors granted by the railways to certain buyers helped to concentrate the grain business in a few hands.[2] The railroads eventually came to own many of the elevators along their lines. The use of an elevator would often be given to an elevator corporation rent-free or at a nominal charge. In return, the dealer was supposed to help create a certain amount of traffic. In addition, an elevation allowance of three-fourths of a cent a bushel was sometimes granted for the transfer of grain even in those cases in which the corporation transferred the grain for the purpose of securing the profits from cleaning, treating and mixing. The free use of elevators and elevation allowances were a discrimination against all dealers who did not

[1] Interstate Commerce Commission Report, vol. xvi, pp. 354 *et seq.*

[2] Testimony of William S. Warren, Ex-Pres. Chicago Board of Trade, in the Grain Elevator Investigation, Interstate Commerce Commission, 59th Cong., 2d Sess., 1906, Sen. Doc. 278, p. 220; *Cf.* pp. 285–6, 358–9, 365, 893–5, 896–910; W. P. Rutter, Wheat Growing in Canada, United States, and the Argentine, London, 1911, p. 181.

possess those advantages. Such discriminations were a new form of rebate.

A rebate is "a quantity price" which is granted to large dealers. In the classic theory, according to which wealth is centralized in the hands of the landlord class, and the capitalist class is left without special advantages, there is no quantity price. Prices tend toward uniformity. This conclusion is based upon the assumption that there is an unrestrained mobility of capital, as has already been indicated. But a discriminatory or quantity price becomes itself a restriction upon the free movement of capital. A quantity price is a discrimination which gives the large dealer such an advantage as to handicap the small dealer or to put him out of business. The small dealer cannot share in such an advantage. It is a privilege granted to large dealers. The lack of such a privilege prevents a small business from becoming large. Thus, it is a differential advantage which does not disappear with competition, as was assumed by the classical school. A quantity price limits free competition. The monopoly prices provided for in economic theory, like competitive prices, are assumed to tend toward uniformity. If a monopoly price is uniform to all competitive lines of business, then it is quite feasible to consider monopoly as a separate and independent phenomenon. But if monopoly prices have a varying effect, then they become a factor in determining the character of the competition of other lines of business. The profits of some concerns which are charged a higher price may disappear so as to drive them out of business, or the profits of some lines of business which are constantly unfavorably affected, as in agriculture, may be permanently at a lower rate. The presence of a quantity price in both competitive and monopoly business is contrary to the basic assumption of classical theory that there is equality of opportunities and a tendency towards a uniform rate of profits.

The equalization of profits, which was the expectation of the early economists, would not permit of the centralization of wealth in the hands of the capitalist class. The differential profits which are based upon the possession of discriminatory privileges make possible such a centralization of wealth. That

such discriminatory advantages may run against the bias of those who favor equality of opportunity, is not the issue here. The problem is to explain the factors which have been effective in bringing about a centralization of control and ownership of wealth in the hands of capitalists and not of the owners of agricultural lands. The tendency which the Ricardian theory was intended to show is contrary to the subsequent course of events. It therefore falls short of being a working hypothesis for the explanation of present business enterprise.

The theory of equalization of profits expresses the expectation of those optimists who believed in an industrial order. At first it was thought that free competition among individuals would eventually prevail as part of the natural order. All that government had to do was to cease granting favors and to protect the results of private enterprise. Private property in capital goods was not regarded as a privilege, but as the evidence of the reward of society for services performed. Profit is the price of management. All prices, including the wages of management of entrepreneurs, are determined by supply and demand. Wages of management measure a man's effectiveness in turning out a supply of products which are demanded by the consuming public. Profits can be high only temporarily. Their reduction will be brought about by a fall in prices as a result of the increased production of both old and new entrepreneurs. If profits vary, it is due to a difference in the industrial efficiency of entrepreneurs. If some factory owners have adopted improvements, their reduced expenses will temporarily increase their profits. Such high profits are a merited reward for efficiency. The absence of profits is a proof of inefficiency on the part of the management. But increased production will eventually force prices down and correspondingly decrease profits.

The expectation of an increase in production is based upon two assumptions: (1) that business men will find it to their interest to go after a market in order to sell more goods, and will do this independently of others and not in combination with them, working in conflict with those in the same trade and not in harmony with them; and (2) that outsiders have an

equal opportunity to come into a new field and increase its production—that is, upon the assumption of there being sufficient mobility of capital goods through circulating capital to increase the supply of goods and to decrease prices and profits. Thus it was expected that the tendency would be for production to increase, for prices to decrease, and for profits to become low, especially in the manufacture of all goods which could be indefinitely multiplied, as for instance, wrought goods which were not thought capable of monopoly control. The quantity of land was regarded as relatively fixed so that parallel with the tendency toward low profits was a tendency toward high rents.

Economists who have been trained to an industrial bias do not give any weight to factors which are not based upon industrial efficiency.[1] From this point of view it is not rebates and other discriminatory privileges but superior managerial ability in putting goods upon the market at a low cost that develops a successful combination.[2] In the earlier relatively disorganized situation, mechanical and industrial improvements are more important—that is, improvements which affected the supply of goods and also the price received for them. In the later situation, non-industrial factors such as rebates, quantity prices, strategic prices, cutting to kill competitors, division of territory to maintain prices, interlocking directorates, community of interests between those in the same line of trade, and trust strategy generally for the organization of a given line of business, come to be more important. Such non-industrial strategic factors affect prices irrespective of supply and demand. Industrial costs do affect supply, but strategic factors do not produce a good or a service for society, though, through sabotage, they may diminish the amount of goods available for consumption.[3] Whatever adds to the amount or serviceability of the goods produced should be included among the industrial or productive processes, but all activities such as "undercut-

[1] L. D. H. Weld, Marketing of Farm Products, 1916, p. 6; Werner Sombart, The Quintessence of Capitalism, 1915.

[2] Arthur S. Dewing, Corporate Promotions and Reorganizations, 1914.

[3] *Cf.* Thorstein Veblen, The Nature of Peace, 1917, pp. 324, 340, 343.

ting" to kill competitors, misstatement of grade or condition of goods, misquoting of a market, manipulated quotations, and wash sales, determine the distribution of wealth to the extent that they affect the size of profits received rather than the amount or serviceability of the goods produced or handled. Thus the price of management may increase or decrease without reflecting a corresponding change in the supply of goods put forth by the managers.

According to traditional theories, middlemen who own the factors of production are powerless to determine prices except as they are able to increase or decrease the supply of goods. The supply of goods is a question of industrial costs. These costs in terms of money will depend upon the relative proportion of the goods to be utilized as compared to the demand for them. Through an improvement in production, costs may be diminished, profits increased, and consequently the supply of goods put upon the market enlarged. But entrepreneurs cannot maintain prices except when they possess a monopoly. Such control can be exercised only through the power of the monopoly to control the supply. Goods once put upon the market have a value or exchange relation which is dependent upon the quantity of other goods upon the market, including money, for which they may be exchanged. The middlemen between the source of supply and the consumer are helpless to fix prices in their own interests except as they have power over the supply, and then it is only through supply. If an organization of farmers, a railroad company, or a consolidation of manufacturing companies is to obtain better prices for its goods it will be only through the power to diminish the rate of output or to improve the quality. If one organization supplants another, it is because of reduced costs. The test of survival is industrial efficiency.

According to this theory prices are the resultant of natural economic forces. Prices at the same time cannot be different at different places which are accessible to the same source of supply. At least, the difference can not be more than that of the industrial cost for transportation and other necessary expense of handling the produce between the different localities.

Thus there is no place in the logic of the philosophy of the theorists of the natural order of supply and demand for discriminatory prices. The competitive philosophy expressed the faith of these theorists in a competitive natural order which should do away with all such phenomena. All the government had to do was to keep its hands off—*laissez faire*. If the government should take a hand, it would be in the same impotent position as speculators and monopolists. Adam Smith, better than any one else of the supply-and-demand school, has expressed the belief in the impotence of all would-be price fixers.[1]

The quantity prices which are fixed in the existing order do not vary with the industrial efficiency of either the granter or the receiver. Rebates were large or small according to the scale of business and strategic position of the shipper. The shipper who has lower freight rates can sell at a price which may force a competitor out of business. A large corporation may be able to crush out an owner of an efficient factory because the former has more dollars to lose in undercutting than the latter. Thus circulating capital does not become necessarily a means of equalizing prices and profits as assumed. Funds may be used for diametrically the opposite purpose, namely, to prevent the disappearance of excessive profits. The quantity price is a form of price-fixing; it is the arbitrary exercise of power in the interest of the owners without any necessary reference to industrial factors. Such power is the resultant of the organization of a business which finds it to its advantage to eliminate undesirable competition. If the tendency is toward discriminatory prices rather than toward uniformity of prices, toward differential prices and quasi-monopoly control rather than toward equality of opportunity and free competition between individuals, the question becomes: What is the effect of monopoly or trust methods upon agriculture as a surviving form of unorganized competitive business?

In the early development of the grain business there were many buyers. The distinction between independent and or-

[1] Wealth of Nations, vol. ii, p. 27; *cf.* F. W. Taussig, Principles of Economics, New York, 1913, vol. i, pp. 159 *et seq.*

ganized buyers did not exist. Prices were good for the farmer. But the system of free competition became disastrous for some grain dealers. All were not on the same footing. The track buyers were a disturbing element to the owners of elevators. The former had no expense from fixed capital. They could shift from one place to another. Their action, like that of tramp steamers, was uncertain. A track buyer could purchase grain where there was no elevator, as readily as where there was one. He could disturb the prices and lessen the profit of the elevator owner. If the elevator owner raised prices above what the local buyer could pay, the latter could withdraw, and buy of farmers where the profits of the elevator concern were in excess of the cost of production. As long as these tramp buyers were allowed to do business the effective organization of grain marketing would not be possible.

In the struggle which now took place between the small and the large grain dealers, the railroads took the side of the latter. The regulation which required that all the grain must be in sight before any cars would be provided, put an end to the competition of scoop shovelers, who could make money without the labor-saving device of an elevator if the railroads would provide them with cars. Farmers could shovel grain from their wagons into the cars; but the railroads refused to give them cars. The transportation companies discriminated against the farmer in favor of the owners of elevators. Thus it became impossible for the farmer to ship to a distant market. The reason given was, that the railroads wished to encourage investment in elevators. The farmers in a neighborhood might have had several millions of dollars invested as compared with the elevator corporations' five thousand dollars. But ten million dollars scattered among many independent farmers does not have as much influence as a million dollars organized in a line elevator corporation.

The grain dealers of many states organized state associations to regulate the trade. Scoop shovelers and independent dealers who did not own elevators were not permitted to belong to an association. The members boycotted any commission house which dealt with an independent dealer or received grain direct

from the farmer.[1] By this method the competition of irregular dealers who had not subscribed to the rules of the association, was largely eliminated. The grain dealers who owned public elevators at terminal markets could, if necessary, use their profits for storage in order to overbid and drive out any undesirable competitors who did not have the profits of storage at primary markets. Thus the period of free individualistic competition, which the Ricardian theory assumed to be permanent, was supplanted by one of organization.

If the logic which was used to indicate the effect of the introduction of the improved method of transportation be applied to this situation, we should expect that the use of the elevator would decrease the labor and cost of marketing grain. Part of the saving would go to the landowner and part to the consumer in the lower prices of grain and flour. Those who went into the elevator business first would make large profits through the saving in labor from the improved method of handling grain. The large profit would induce others to build elevators. As long as the returns continued greater than those offered in other lines, there would be inducement for others to come into the business. Those who came in later would be obliged to bid up the price of grain in order to obtain business. Thus the saving in the handling of the grain would be transferred in the first instance to the farmer and later to the landlord in increased rent. The diminished cost of production would make it possible for less fertile lands to be brought into cultivation. Then the price to the consumer would decrease until population should increase the demand. But in the situation before us, there is a divergence from the industrial conception of value. The elevator is not simply a labor-saving device. It is an income-yielder to those who control its use. To the extent that its ownership gives power to line elevator corporations for the depression of prices to the farmer, private property makes of the implement a means for the centralization of wealth out-

[1] Testimony taken by the Interstate Commerce Commission in the matter of the Relation of Common Carriers to the Grain Trade, 1906, 59th Cong., 2d Sess., Sen. Doc. 278, pp. 11–35, 44, 83–4, 648, 658, 665–676, 721, 743, 754–5, 764, 907.

side of the farm-owning class. According to the belief of the early theorist, excessive profits would be prevented, for the inducement of large returns would encourage others to come into the business until prices should be brought to the cost of production. But the free and equal opportunities to enter a business which has been assumed did not continue to exist.

Ownership which adds to the value of the product is to be distinguished from the industrial productivity of an instrument which adds to the amount or serviceability of the product. The elevator was not simply an instrument to render a maximum of service at a minimum of labor cost, as would be the case were its machinery used simply for producing serviceable goods, according to the assumption of both the classical and marginal-utility schools; but rather a device used by the owners as a means of mixing grain to raise the grade and to increase its selling value to themselves, a process which results in depreciating its worth to the millers.[1]

To control the grain business further, dealers at terminal centers organized to share the expense of collecting and distributing information as to crops and prices, and to determine the base price to be sent out and the margin of profits to be deducted from this price, and to allot the amount of business each was to receive.[2] Grain buyers did not necessarily bid up the price of grain in order to increase business as has been assumed in the competitive theory of economics; co-operation was substituted for competition. The buyers of farm products do not necessarily find it to their interest to compete. They have a common interest in a low price; either through a "gentlemen's agreement" or through following their common interest without any formal agreement they may maintain prices at a lower level. Strategic factors are not simply potent in the formation of great systems of railroads and of trusts, but they are also prevalent in the small market of country towns, where

[1] Grain Elevator Investigations, pp. 1108–1112; Mack H. Davis, Flour and Wheat Trade in European Countries and the Levant, Special Report Department of Commerce and Labor, Sen. Doc. 149, 61st Cong., 1st Sess., pp. 55–62.

[2] Grain Elevator Investigations, pp. 31, 658, 686, 700, 707, 713, 719, 722–724, 848, 867–8, 873–6, 891–2, 904, 930, 965, 981 *et seq.*

price cutting may be resorted to to drive out competitors and to depress the price paid to the farmer.[1]

As a result of the depression of prices and of the disadvantage to the farmer which the organization of transportation and marketing brought about, the farmers themselves in the early eighties began to organize for the marketing of grain.[2] According to traditional theory there is no necessity for organization. Prices are simply dependent upon an efficient supply and an effective demand. Organization interferes with the assumed natural order of individual liberty to supply and demand goods.[3] The explanation of supply has been sought in the necessary industrial costs to the individual entrepreneur of putting the supply of the article in question on the market. A fall in prices would be due to a decrease in the expenses of production through an improvement in technology or to a decrease in the demand of consumers. But the fall in prices which caused farmers to organize was not due either to an improvement in industrial method or to a decrease in consumers' prices, but to the strategic position of the buyers and handlers of farm products. That is, it was not the competition of superior industrial methods of other farmers which forced some of them to organize, but the superior bargaining position of the middlemen agencies which stand between the producer and the consumer. Consumers' prices do not vary correspondingly with producers' prices. The margin between producers' prices and consumers' prices, or the amount received by the middlemen, has been increasing.[4] To reduce this margin and at the same time to realize the profits of integrating some of the processes of marketing

[1] Farmers' Market Bulletin, N. C. Agricultural Experiment Station, October, 1915.

[2] J. L. Coulter, Co-operation Among Farmers, 1911, pp. 115 *et seq.*; G. Harold Powell, Co-operation in Agriculture, 1913, pp. 81, 121 *et seq.*

[3] This was the position held by Adam Smith and by the advocates of individual liberty generally. The modern business men oppose labor organization, but demand the right to organize for themselves. The economists are equally inconsistent: they have come to admit that labor organization may be a good thing to hasten the action of the supply-and-demand forces, but they are apt to be opposed to the large-scale organizations of business as an interference with the natural order of free competition between individuals.

[4] Adams, Marketing Perishable Farm Products, 1916.

with those of farming are among the main purposes of farmers' organizations. In organizing, farmers found the banking interest, the large elevator owners, and the railroads against them. The railroads refused to grant sites or build side-tracks to the land owned by the farmers.

Railroad companies would have a shortage of cars during the busy season, and when the farmers' elevator company wanted to ship grain, because of satisfactory prices the railroads would find it possible to furnish cars to the elevators owned by the capitalists, but would not be able to get cars for the farmers. When cars arrived it was difficult to get them into place for loading, and just as difficult to get them hauled to the terminal points. They were often lost for two or three days on the way. It was even found to be extremely difficult to find members of the grain exchanges to look after the selling of the grain. Every possible discouragement was put in the way of the farmers' organization.[1]

The regular grain dealers would join together in bidding up the price of grain in order to break up the farmers' company. A higher price would be paid than the grain could be sold for. Thus in the grain trade as in other lines, business was done below cost, often with the result of ruining the independent, and not both of the concerns which experienced the losses. These obstructive tactics form no part of the methods of industrial efficiency which were thought to be necessary for survival according to the individualistic competitive theory. Neither the result nor the intent of such tactics is to add to or decrease the quantity of products on the market. Industrial methods do affect supply; but the non-industrial strategic methods of the railroad and elevator corporations affect primarily the distribution of wealth rather than its production.

Notwithstanding the opposition of transporting and marketing organizations, there were in 1911 nearly 1800 farmers' grain elevator companies in the United States. They handled 270,000,000 bushels of grain or about 40 per cent of the total amount shipped from the sections where the farmers' elevators

[1] Coulter, pp. 119–120; Grain Elevator Investigation, pp. 668–672, 730–731, 742, 755, 778–779.

had been built. The price paid the farmer for grain was from two to six cents a bushel higher where there was a farmers' organization than where there was none. A line elevator company might be paying these different prices at the same time, depending upon whether there was a farmers' elevator or not. Thus with no change in the supply and demand, different prices may prevail. Supply and demand are not the only factors which determine prices; organization is a most important factor. The natural order of free competition between individuals has been supplanted by one of competition between individuals and organizations and between organizations. The railroad principle, "Charge what the traffic will bear," becomes in the hands of a line elevator company, "Pay what the traffic will bear." Where there is no near-by competition the traffic will bear a lower price.

With a few exceptions the organization of the farmers in the United States has not advanced beyond the integration of the business of the local buyer with that of the production of farm crops. The owners of agricultural lands have not achieved an integration of the intermediate processes between the production of the raw products and the manufacture and sale of the finished product, as in many other lines of business, such as steel, lumber and oil. The flour mill is no longer a means of income to the landlord, as in medieval Europe.

It has not been possible in farming to obtain as many economies from carrying on the business on a large scale as in manufacturing. On a farm a child or a man cannot run a large number of machines as in a factory. The farmer cannot use automatic machinery. He has comparatively small investment in a specialized form of fixed capital. The machinery and horses can readily be turned from cultivating and harvesting one crop to another. Economy from subdivision of labor cannot be obtained by a small-scale business like farming; a laborer may be required to do any kind of work.

There is no such necessity in farming to make certain of a large market in order to support the heavy fixed charges of highly specialized automatic machinery. One notable exception is that of the citrus growers of California and Florida who,

because of their large fixed capital investment in orange groves, have been forced to organize the better to control their markets.[1]

The machine process makes possible the repetition of a uniform product of the same grade and quality. Thus it is that manufacturers have a uniform product to sell, the reputation of which can be increased with every sale. This reputation becomes an intangible asset. People become accustomed to ask for a product about the uniform quality of which there can be no question. All money spent in training consumers to a customary purchase of a standardized product becomes a source of profit to the corporation which controls its production. The advertising of manufactured goods pays. Trade marks develop to give distinction to all repetitions of a machine-made product. System in selling becomes possible. Large investments in advertising may develop distant markets which may become world-wide.

In a hand-to-mouth distribution of products, from handicraftsman to consumer, system or organization in selling very fittingly receives as little attention as it does in Adam Smith. Handicraft goods, like agricultural products, have peculiarities which vary with the individual craftsman. The consumers of a locality adapt their tastes to the variable characteristics of the producers of their own immediate neighborhood. But when machine-made goods habituate consumers to uniform standards, and when fixed capital investment in expensive automatic machinery cheapens large-scale production, then a system for developing and maintaining a large and regular demand becomes not only possible, but imperative. In brief the sale of unstandardized products gives the profit of determining the grade to interested middlemen and makes the cost of distribution greater through the necessity of repeated grading.

Under existing conditions farmers have been able to acquire the intangible assets of regular trade for a standardized product only in the disposal of citrus fruit, dried prunes, apricots and peaches, and to a limited degree in the case of apples and

[1] Powell, Co-operation in Agriculture.

potatoes. Only in the marketing of citrus and dried fruits can the organization of the growers be said to have a commanding position in the market at all comparable with that of the railroads or of the great industrial corporations. Without a marketing organization, a farmer is dependent upon the production of a crop for an income. Others distribute his products and gain a profit from their sale throughout the year. From the fact that his income is received mainly at one season there follows an increased necessity for credit at a higher rate of interest than in the case of those whose assets may be hourly or daily converted into cash.

In the matter of credit, as well as of transportation and markets for his produce, the farmer is generally located at a non-competitive point. The principle of rate making is that of charging what the traffic will bear. A large business can borrow for less in the small town or in the large cities, because it has a credit reputation in either place. It pays a large corporation with a high credit rating to keep an account in New York: it saves New York exchange. Such a corporation can borrow money in New York for three and a-half per cent when farmers have to pay in the country from five to a hundred per cent.[1] On the other hand, the credit reputation of a farmer is limited to the locality where he lives.[2] Rates of interest are lowest in the large cities, and higher on the average in the agricultural than in the industrial states. The smaller the town, the higher is the rate of interest. The dependence of a farmer upon one locality for short-time credit makes it possible for his credit agencies to apply the monopoly principle: charge what the traffic will bear. This is a differential disadvantage which the Ricardian theorists have left out of account.

[1] Report of the Comptroller of the Currency, December, 1915; Crop Reporter, April, 1913; *American Economic Review*, Sept., 1913, March, 1914. These conclusions, however, are largely based upon answers to a questionnaire sent to bankers in different parts of the United States by the Economics Department of the University of Missouri, 1912.

[2] The passage of the Federal Farm Loan Act will establish a farmer's credit rating for long-time loans in any market in the United States, and make his land-mortgage bonds widely negotiable, as in Europe.

Credit is a relatively new factor which becomes increasingly important as farm products are sold in distant markets. Capital in funds, which has been most relied upon to equalize profits, itself does not tend to receive an equal return. To the extent that the rate of return charged for the use of capital is unequal, conditions for entering a new business or enlarging an old enterprise are not equal, competition is not free, and capital does not have the natural economic mobility assumed. The Federal Reserve Banks and the Land Banks have been created to control the mobility of capital. Thus the state has become increasingly a factor in destroying the free play of economic forces assumed. What form this state direction of capital will take depends upon the future. But the increased government direction of production during the war through the control of credit, coal, railroad and water transportation in the interests of the more essential industries may show the increasing importance which some form of state or collective action will assume in the future.

The high rate of credit in the rural districts has had the opposite effect from that expected by Ricardian theorists. Capital has not moved to the rural districts in sufficient volume without state interference to lower the high rate of interest. One of the results has been that settlement of land has been restricted. The high rate of interest at the extensive margin of cultivation, no less than the degree of fertility considered by Ricardo,[1] has been one of the factors affecting the unit costs. Another result is that farmers may be forced to sell their products as soon as they are ready for market to middlemen who have cheaper credit.

[1] According to economic theory, differences in the rate of interest are explained by differences in the risk. This risk represents possible losses. Through investigation it has been found that the losses of bankers from bad loans are negligible though the rate of interest among them may be highly variable as indicated above. Risk as a factor in explaining differences in the rate of interest is therefore negligible to the extent that losses are nominal.

The difference in the price of credit was thought to cover the difference in the cost of credit extension. But if these differences do not represent losses the higher price may be a source of greater profits. The size of bank dividends is evidence that the so-called excessive profits do not necessarily disappear in the existing order, as assumed in the natural order of economic forces.

The laws of the different states have not been favorable to the formation of co-operative organizations of farmers for pooling the sale of farm products.[1] If the stock is to be owned as ordinary corporation stock with the legal right to cast one vote to each share owned or held by proxy, nothing can prevent the organization from falling under the control of a few buyers. A special enactment of law is necessary in order to restrict the right to vote to one vote to each member, irrespective of the number of shares owned. This restriction upon the transfer of capital stock would lessen the possibility of exploiting the associations from within.

In a corporation the directors are assumed to represent the stockholders and in their official actions to conform to the interests of the latter. Every stockholder is presumed to have power in the election of directors in proportion to his stock. The management is theoretically democratic; but it develops that the person with one hundred shares does not have power corresponding with that of the director who owns or controls one hundred thousand shares. The power of the minority in a corporation is nominal. The directors as stock vendors may be making large returns when the stock is paying little or no dividend. The legal privilege of voting according to shares owned or controlled proves to be a method of centralizing wealth.

Investment in a co-operative enterprise is not primarily for returns from holding or selling stock, but for an increased income from the farms which are kept under the independent management of the individual owners. The interest of the farmers continues to be primarily in their farm investment. Their outlay for stock in a co-operative marketing agency is nominal. For this reason if the co-operative association suffers losses, while gaining ordinary business experience, the members may withdraw. A farmers' organization may thus be so loosely bound together as to be unable to gain sufficient experience to become efficient. Manufacturers have likewise found a co-operative joint sales agency not sufficiently binding to enable

[1] Powell, Co-operation in Agriculture, pp. 18–78.

them to realize permanent economies from large-scale marketing. After repeated failures to carry out the agreements involved in such arrangements, individuals have given up their ownership of separate plants and taken stock in a corporation.[1] In some industrial pools, stock is owned according to the output of the plants which enter into the association. But when profits are to be gained mainly from the exchange of securities, the control of as many shares as possible becomes desirable. Then the ownership of independent property may be given up for stock in a corporation.[1] Whether such a move is advantageous or not will depend upon whether the owners of the independent plants become a part of the management of the resulting consolidation or holding company. The laws of the United States generally have been against all pools as organizations in restraint of trade. The same purpose, however, has been accomplished by the formation of a consolidating corporation or a holding company. Then the control may be shifted from the original manufacturers to financiers, as in the case of the International Salt Company and the United States Steel Corporation.[2] Thus the hostility of the law to pooling associations has had the effect of increasing the concentration of business management. This result is the very opposite of the purpose of the law, which is to maintain the old order of free competition.

To prevent the sale of stock to those hostile to the co-operative organization of farmers, the stock must be made either non-transferable or salable only by the consent of the organization. Membership must be made stable by a binding contract. On the other hand, the main advantage of ownership of ordinary corporation securities has come to be in their exchangeability by stock vendors or in their convertibility by bankers or other creditors. In a purely co-operative association the profits go to each member according to his contribution to the products which the association sells. A low fixed return, or none at all, may be allowed upon the stock invest-

[1] Arthur S. Dewing, Corporate Promotions and Reorganization, pp. 518 *et seq.*

[2] *Ibid.*, pp. 147, 198.

ment. The division of profits may be according to acreage or productivity of the soil.

In a corporation the profits need not be diffused among the stockholders but often are centralized in the hands of the vendors of stock. When more profit can be made from the sale of stock than from holding it, then the corporation will be run in the interest of the vendors of its securities. The directors are the best vendors because they have the inside information to know when to buy and sell. Stock that is paying no dividend may be bought to secure a controlling interest. Management is sought to control the terms of issue of securities. Holding companies of consolidations and holding companies of holding companies are formed to increase the sphere of management of the directors beyond their own power of ownership. The directors may be also directors in the largest credit institutions. As bankers, they are in a position to reap a profit whether a receivership, a reorganization, or a promotion scheme is under way. Whether the industrial corporation is worsted or not depends upon the terms which are made by its financial directors for the exchange of its securities. No adequate data are obtainable on this most important phase of modern business organization.[1] But it seems clear that the financial directors are in a position to reap profits from the increase in the capitalization of a corporation. The profits made form a part of the price of management and of the price of credit to the corporation. These profits from traffic in securities constitute the great advantage of management or control of a corporation.

The profits from vending securities are in no wise proportioned to the time of owning or controlling the capital. The great fortunes made in this way are not explainable by competitive philosophy. Those who make them have a monopoly of control of a corporation and of knowledge as to the inside conditions which may give rise to an increased or decreased dividend and consequently to a fluctuation in the value of the stock. It is upon these fluctuations that profits from stock are

[1] *Cf.* Dewing, pp. 121, 171, 473, 492, 558.

made. The degree of control of the few who own the controlling interest in a corporation does not necessarily equal or bear any relation to the degree of control which the corporation has over the prices of its products or services. The time element that figures so largely in an industrial concept of capital as a collection of capital goods for producing a supply of products for the consuming public is not of commensurable importance in the transfer of the ownership of securities. The length of time that is necessary to create a fluctuation in the value of securities can not be said to be the same as the time the corporation takes for the production of commodities. The fluctuations in the value of the securities of a corporation may or may not be due to a change in the supply of the commodities made by it and the demand for them. These fluctuations are more likely to be caused by the organizers of the stock market, when greater profits come to be made through the vending of securities.[1] Then instead of supply and demand being the cause of all things—of entrepreneurs' profits, rate of interest, price of producers' capital goods, of consumer's capital goods and of labor, according to classical and marginal utility theories—supply becomes a by-product of high finance, that is, a phenomenon shaped by the controlling financial interests. The increase, decrease or idleness of capital goods may affect the supply of consumption goods, but the transfer of stock ownership is a form of mobility of capital which may be the source of great profits without affecting the supply of the goods produced. Railroads and factories move just the same whether the stock market is sluggish or active—that is, as business enterprise has become less industrial, profits are less traceable to the technological causes which the Ricardian and utilitarian theorists have in mind. Corporation securities are a form of private property which has assumed importance since the days of Ricardo. It is a new factor in a new situation which helps explain the centralization of wealth contrary to his expectations.

The reason why the organization of farmers proceeds more slowly than organization in other lines of business may be sum-

[1] Pujo Money Trust Investigation, 1913.

marized as follows: The variable unstandardized character of farm products makes the control of their sale through organization of farmers more difficult. The expenditure for telegraphic information of markets, for expert knowledge of the movement and proper diversion of railroad traffic, and for the services of expert shippers for each of the wide range of products produced within any given area is so great as to make small organizations of producers unprofitable. The "seasonal" character of farm production militates against, and increases the expense of, employing permanent managers. The capacity of agricultural land to produce a variety of crops does not cause the investment in it to be fixed capital, which would require a marketing organization for its preservation and for the maintenance of profits. The uncoördinated, scattered character of agricultural production makes the concentrated control of large tracts of land difficult. The ability to make profits more readily from agriculture through railroad organization, industrial and banking corporations, middlemen organizations and mercantile agencies makes it impossible to realize such profits through the organization of farmers. The discriminatory prices which have been granted to some farmers have not been sufficient to give one farmer large-scale control. The higher price paid large farmers makes them uninterested in organization. The dependence of small farmers in some sections for credit upon supply merchants and fertilizer and seed companies does not leave them free to join organizations for storing and more advantageous marketing of their products, since notes are made due so as to force early payment, and sale is frequently restricted to the creditors. The higher discriminatory prices charged the small farmer for supplies, credit and transportation keep him from increasing the size of his business. The organization of farmers with small capital scattered over a large area has proved difficult, and in America generally impossible; the co-operative form of organization which endeavors to eliminate all special profits to organizers discourages organization of farmers in competition with ordinary business corporations, while profits to the promoters have formed a prime incentive to the organization of the great combinations

in business. In co-operative organizations increased control through voting by proxy is prohibited, and the amount of stock which can be owned is limited; while proxy voting, unrestricted stock ownership, holding companies, voting trusts and "community of interests" have made control of ordinary corporations easier and more profitable. This comparative lack of organization among farmers as buyers and sellers and among consumers as buyers are two of the great differential advantages of all other organized business.

The Ricardian theory of rent is drawn in terms of a land monopoly. The only differential advantages contemplated, those of soil and of location, were to accrue to the landlord. Such advantages were considered sufficient to centralize wealth in the hands of the owners of agricultural lands. We have shown some of the differential disadvantages of the farm-owning class, which largely explain the causes of the fall of the land monopoly and the centralization of wealth in more powerful organizations of capital.

While the Ricardian theory of rent shows the character of the cleavage of interests between the agricultural land-owning and manufacturing classes at the beginning of the nineteenth century, its limitations become increasingly apparent as later economists use it to interpret conditions which have changed contrary to the expectation of Ricardo. The struggle between the owners of agricultural land and of other forms of capital has brought about a result the reverse of what Ricardo contemplated. We have questioned the fitness of the assumptions underlying his competitive philosophy of prices and of distribution of wealth as applied to later times. If great technological changes had not taken place, wealth might have continued to centralize in the owners of agricultural lands. We are not, however, primarily questioning Ricardo's logic; rather we wish to show that he could not be expected to explain conditions which he could by no power of prescience forecast. A new theory is needed to explain the centralization of wealth in the hands of others than the owners of agricultural lands.

WILLIAM R. CAMP.

WEST RALEIGH, N. C.

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BIOGRAPHICAL SKETCH

Graduate of Oberlin High School, Oberlin, Ohio, 1893.

Student of Oberlin Academy, Oberlin, Ohio, 1894.

Student of Leland-Stanford University, Palo Alto, California, 1896-1908.

Investigator of Social Conditions, San Francisco, 1898 and 1899. Employed by Associated Charities.

Graduate of New York Summer School of Philanthropy, 1899.

Investigator Social, Economic and Political Conditions. Employed by Charity Organization Society, 1899-1900. Employed by New York Tenement House Department, 1900-1904.

Investigator of Rural Conditions, California, 1904-1905.

Student of Economics and Political Science, Stanford University, 1906-1909. Graduate 1909. Graduate work 1909-1911.

Graduate work in Economics and Student Assistant, University of Missouri, 1911-1912.

Professor of Economics and Political Science, Lombard College, Galesburg, Ill., 1912-1913.

Chief of North Carolina Division of Markets, and Superintendent of Credit Unions, Raleigh, N. C., 1913, to date. Appointed Field Agent in Marketing by the Federal Bureau of Markets, March 15, 1918.

Professor of Agricultural Economics, North Carolina State College of Agriculture and Engineering, 1913, to date.

Dissertation completed under the direction of Dr. Thorstein Veblen.

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